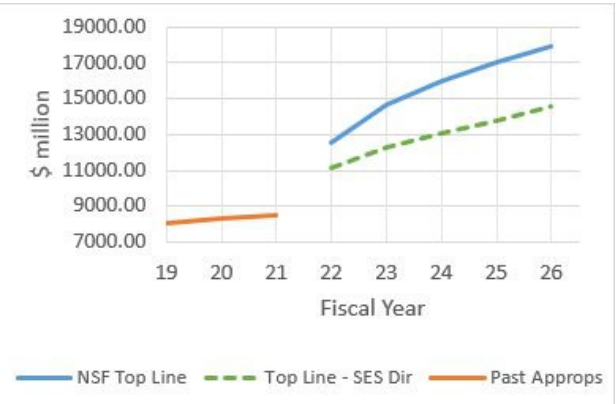
H.R. 2225
National Science Foundation for the Future Act



Funds more excellent research

The research community has the capacity to pursue far more research ideas than the National Science Foundation (NSF) can fund. These unfunded projects represent an enormous untapped potential to create new knowledge and drive innovations that spawn new industries and solve problems for the benefit of the American people. This bill authorizes a significant increase in funding for the agency.

- **Increases overall funding for the agency (minus the new directorate) by $2.6 billion in fiscal year 2022, to $11.1 billion, and grows at an average annual rate of 7%, to $14.5 billion in fiscal year 2026.**

- **Directs investments in critical research-enabling infrastructure, including a 50% increase to the Mid-Scale Research Infrastructure program, support for helium conservation equipment, and a roadmap for meeting the research community's growing need for advanced computing capabilities.**

Improves STEM education and Research Training

- Establishes a new centers program to support translational research and development to help scale up effective PreK-12 STEM education innovations.
- Encourages efforts to align undergraduate STEM education with workforce needs.
- Advances policies and funding to raise the bar for the training, mentoring, and professional development of graduate students and postdoctoral researchers.
- Establishes a pilot program to support partnerships that will expand research opportunities to students who attend minority serving institutions or other emerging research institutions.
- Encourages expanded data collection on the nature of the STEM workforce.

Federally funded research must be accessible and accountable to the American public. In addition, threats to research security have the potential to undermine the integrity of federally funded research projects. The bill addresses these challenges at multiple levels of accountability.

Increases research accessibility, accountability, & security

- Supports improved implementation of the Broader Impacts criterion and creates a new requirement for researchers to prepare a statement on possible security or other risks to society from their research in order to encourage researchers to always consider their research in a societal context.
- Expands access to data and other research products resulting from Foundation-funded projects through new data stewardship requirements and investments in open science tools and infrastructure.
- Supports research related to climate change, violence, the food-energy-water system, sustainable chemistry, risk and resilience, UAV technologies, clean water systems, technology and mental health, critical minerals, precision agriculture, and the impact of satellite constellations on NSF-funded science.
- Codifies the Office of Research Security and Policy and the Chief of Research Security position to provide guidance and resources to researchers and funds the development of training, resources, and tools to help institutions and researchers understand and mitigate security risks. Establishes a prohibition on participation by NSF-funded researchers in malign talent recruitment programs.

In carrying out its fundamental science and engineering mission over the past seven decades, the Foundation has delivered enormous benefits to society. **It is time to build on that legacy and move the Foundation forward.** To that end, the bill creates a creates a new directorate, the **Directorate for Science and Engineering Solutions (SES)**, that will enable the Foundation to take big risks and experiment with new approaches to accelerating progress in translating science and technology into solutions to society's major challenges. A critical consideration for the new SES directorate is its impact on the rest of the agency. The bill creates a structure, a funding profile, and feedback mechanisms to mitigate risks to the longstanding basic research mission of the Foundation and encourage collaboration across the agency.

Accelerates research to address major societal challenges

- Encourages an ecosystem of partnerships and collaborations in use-inspired and translational research, including through support for university technology institutes, technology transfer capacity building activities, and entrepreneurial fellowships.
- Authorizes $1.4 billion for the SES directorate in fiscal year 2022 with an average annual increase of 27% to $3.4 billion in fiscal year 2026. This budget is in balance with the budget for the rest of the agency, reaching 19% of the total agency budget in its fifth year.

Support for H.R. 2225

American Astronomical Society
American Chemical Society
American Educational Research Association
American Geophysical Union
American Institute of Biological Sciences
American Mathematical Society
American Physical Society
American Physiological Society
American Political Science Association
American Society for Engineering Education
American Society for Microbiology
American Society of Civil Engineers
American Society of Plant Biologists
Association for Psychological Science
Association of American Universities
Association of Public and Land-Grant Universities
Association of Science and Technology Centers
Boston University, Carnegie Mellon University
Carnegie Mellon University Graduate Student Assembly
Computing Alliance of Hispanic-Serving Institutions
Computing Research Association
Consortium of Social Science Associations
Council of Graduate Schools
Council on Undergraduate Research
Ecological Society of America
Entomological Society of America
Federation of Associations in Behavioral & Brain Sciences
Georgia Institute of Technology
HIBAR Research Alliance
Massachusetts Institute of Technology Graduate Student Council
National Center for Women & Information Technology
Natural Science Collections Alliance
Organization of Biological Field Stations
Pennsylvania State University
Population Association of America
Princeton University
Semiconductor Industry Association
Society for Industrial and Applied Mathematics
Society for the Study of Evolution
State University System of Florida
The Optical Society
the Society for the Preservation of Natural History Collections
University of California
University of Cincinnati
University of Colorado
University of Rochester
University of Vermont
University of Virginia